Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. – 3.   (Canceled)

4.   (Currently Amended) ~~The method according to claim 1, further comprising the steps of:~~ A method of detecting multipath components in time-varying fading radio channels in a digital wireless communications system in which individual multipath components of a signal transmitted through a channel are received with individual delays (T_a, T_b, T_c) within a range of possible delay values, and in which signals transmitted through a given channel comprise an identification code identifying that channel, the method comprising the steps of:

calculating repetitively for each of a number of known channels a delay profile indicating a magnitude (Y) for each of a number of individual delay values in a search window constituting a subset of said range of possible delay values and being positioned based on at least one previously calculated delay profile for the corresponding channel;

estimating from said delay profiles the delays of multipath components for each known channel;

calculating from said delay profiles a signal strength indicator for each known channel; and

searching at regular time intervals for new multipath components that are not already estimated from one of said delay profiles;

comparing, when a new multipath component is found, the identification code of the new multipath component to the identification codes of said known channels;

calculating, if the identification code of the new multipath component is identical to the identification code of one of the known channels, a delay profile and a corresponding signal strength indicator for a transposed window obtained by transposing the search window of that known channel to include said new multipath component;

comparing the signal strength indicator calculated for that known channel to the signal strength indicator calculated for the transposed window, and

replacing, if the signal strength indicator calculated for the transposed window is larger than the signal strength indicator calculated for that known channel multiplied by a factor, the signal strength indicator for that known channel by the signal strength indicator for the transposed window.

5. (Previously Presented) The method according to claim 4, wherein the factor equals one.

6. (Previously Presented) The method according to claim 4, further comprising the step of replacing, if the signal strength indicator for that known channel is replaced by the signal strength indicator for the transposed window, the search window for that known channel by the transposed window.

7. – 14. (Canceled)

15. (Currently Amended) ~~The receiver according to claim 12, further comprising:~~ A receiver adapted to detect multipath components in time-varying fading radio channels in a digital wireless communications system in which individual multipath components of a signal transmitted through a channel are received with individual delays (T_a, T_b, T_c) within a range of possible delay values, and in which signals transmitted through a given channel comprise an identification code identifying that channel, comprising:

a means for calculating repetitively for each of a number of known channels a delay profile indicating a magnitude (Y) for each of a number of individual delay values in a search window constituting a subset of said range of possible delay values and being positioned based on at least one previously calculated delay profile for the corresponding channel;

a means for accepting said delay profiles and estimating from said delay profiles the delays of multipath components for each known channel and calculating from said delay profiles a signal strength indicator for each known channel;

a means for searching at regular time intervals for new multipath components that are not already estimated from one of said delay profiles;

a means for comparing, when a new multipath component is found, the identification code of the new multipath component to the identification codes of said known channels;

a means for calculating, if the identification code of the new multipath component is identical to the identification code of one of the known channels, a delay profile and a corresponding signal strength indicator for a transposed window obtained by transposing the search window of that known channel to include said new multipath component;

a means for comparing the signal strength indicator calculated for that known channel to the signal strength indicator calculated for the transposed window, and

a means for replacing, if the signal strength indicator calculated for the transposed window is larger than the signal strength indicator calculated for that known channel multiplied by a factor, the signal strength indicator for that known channel by the signal strength indicator for the transposed window.

16.   (Previously Presented) The receiver according to claim 15 wherein the factor equals one.

17.   (Previously Presented)   The receiver according to claim 15 further comprising a means for replacing, if the signal strength indicator for that known channel

is replaced by the signal strength indicator for the transposed window, the search window for the known channel by the transposed window.

18. – 24.   (Canceled)